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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/828,259

04/21/2004

Tae Hee Lee

P25206

4849

7055 7590 07/16/2008  
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EXAMINER

HECKERT, JASON MARK

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

07/16/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/828,259	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> JASON HECKERT	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-14, 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/8/08 has been entered.

### ***Response to Arguments***

2. Due to the applicant's amendments to the claims, the previous rejections are rendered moot. Applicant has amended the claim to state that water is supplied into the tub while stopping operation of the pump if the measured pressure is less than a prescribed pressure.

3. However, Bolduan has set forth a teaching correlating a dynamic pressure reading from a sensor in the circulation line to appropriate water level. "If there is sufficient dynamic pressure, the valve 7 is closed, and if the circulating line 9 contains only a little washing liquid or no washing liquid at all the valve 7 is opened." (paragraph 32). One skilled in the art realizes that when there is little to no water, the dynamic pressure is low, and therefore less than a prescribed pressure for what constitutes a "sufficient" dynamic pressure. Thus, Bolduan discloses supplying water to an appropriate level corresponding to a sufficient dynamic pressure. Bolduan also discloses occasionally shutting off the pump to measure static pressure. Bolduan is

silent as to whether or not the pump is shut off during the lower water conditions, or during the addition of water. However, the examiner believes it to be obvious to shut off the pump in low water conditions. As stated previously, Bolduan gives motivation for shutting off the pump occasionally to measure static pressure (paragraph 33).

Additionally, it is well known in the art to shut off a pump during low water conditions as this can create cavitation, or noise. Thus, the examiner believes that if the dynamic pressure was not high enough thereby signaling a low water condition, it would be obvious to turn off the pump in order to prevent noise.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-14, 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Bolduan in view of Broker. Bolduan discloses supplying wash water to a tub and circulating it along a circulation channel. Bolduan further discloses a sensor 12 that measures the static and dynamic pressure in the discharge line of the pump 10 as the pump is frequently stopped for short prescribed periods of time to determine water level. If the pressure exceeds a prescribed amount, such as critical water level, safety precautions are initiated. Such safety precautions include shutting off the water supply valve. The pump is started again after it is stopped briefly throughout the process. Water continues to flow in through the valve 7 if the dynamic pressure is not sufficient

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(paragraph 32). Bolduan is silent as to whether or not the pump is shut off during the lower water conditions, or during the addition of water. However, the examiner believes it to be obvious to shut off the pump in low water conditions. As stated previously, Bolduan gives motivation for shutting off the pump occasionally to measure static pressure (paragraph 33). Additionally, it is well known in the art to shut off a pump during low water conditions as this can create cavitation, or noise. Broker discloses that pump starvation is undesirable. If such a condition is detected, the pump is turned off. If such a condition is determined to no longer be present, such as when water level is sufficient, the pump can be turned back on (paragraph 28). Thus, it would have been obvious to one of ordinary skill in the art to turn off the pump of Bolduan if the dynamic pressure indicates an insufficient water quantity, as Broker teaches that insufficient water causes pump starvation and noise, which is undesirable.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art  
Unit 1792

JMH